

Title (en)

Method and apparatus for false-lock detection in carrier recovery and for SNR estimation (Eb/No) of a digital communication link

Title (de)

Verfahren und Vorrichtung zur Erkennung von falscher Trägerfrequenzwiedergewinnung und zur Bestimmung des Signal-Rausch-Verhältnisses Eb/No einer digitalen Übertragungsstrecke

Title (fr)

Procédé de détection de décrochage de récupération de porteuse et de détermination du rapport Eb/No d'une liaison de transmission numérique et dispositif

Publication

EP 0658993 B1 20000809 (FR)

Application

EP 94402853 A 19941212

Priority

FR 9315086 A 19931215

Abstract (en)

[origin: EP0658993A1] The method of the invention is applied to a signal with a plurality of phases which consists of two data trains in phase quadrature supplying, at each symbol time, a received sample the position of which in the constellation is defined by its coordinates (In, Qn) obtained by quantisation of these data trains. It consists in: - determining the number of received samples, called erroneous samples, during a defined time interval, the coordinates of which correspond to those of specimen samples, the coordinates of the specimen samples being different from those of samples received in optimal transmission conditions, called optimal samples; - calculating the ratio between the number of erroneous samples and the total number of samples received during this defined time interval, this calculated ratio being inversely proportional to Eb/No.
<IMAGE>

IPC 1-7

H04L 1/20; H04L 27/22

IPC 8 full level

H04L 1/20 (2006.01); **H04L 27/22** (2006.01)

CPC (source: EP US)

H04L 1/206 (2013.01 - EP US); **H04L 27/22** (2013.01 - EP US)

Cited by

EP1039708A4; EP1043873A4; GB2323502A; GB2323502B; US6449321B1

Designated contracting state (EPC)

BE DE ES FR GB IT NL SE

DOCDB simple family (publication)

EP 0658993 A1 19950621; EP 0658993 B1 20000809; DE 69425477 D1 20000914; DE 69425477 T2 20010405; ES 2150973 T3 20001216; FI 945834 A0 19941212; FI 945834 A 19950616; FR 2713855 A1 19950616; FR 2713855 B1 19960119; US 6108373 A 20000822

DOCDB simple family (application)

EP 94402853 A 19941212; DE 69425477 T 19941212; ES 94402853 T 19941212; FI 945834 A 19941212; FR 9315086 A 19931215; US 35597394 A 19941214